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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,143	01/08/2004	Yung Yip	10426US01	9649

7590 04/19/2007
Attention: Eric D. Levinson
Imation Corp
Legal Affairs
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EXAMINER	
CASTRO, ANGEL A	
ART UNIT	PAPER NUMBER
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/755,143	Applicant(s) YIP, YUNG	
	Examiner Angel A. Castro	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Amendment filed 2/7/07.

Election/Restrictions

1. Newly submitted claims 21-22 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 21-22 are directed to Species C.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-22 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 8-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwarz (U.S. Pat. 5,541,793).

Regarding claim 1, Schwarz discloses a system for reading and writing information to magnetic media (figure 11) comprising:

an array of write heads 488, 502 arranged in a two-dimensional matrix, wherein each of the write heads defines a write channel for the system; and

an array of magnetoresistive (MR) heads 486, 504, wherein each of the MR heads defines a read channel for the system.

Regarding claim 3, Schwarz discloses that each of the write heads is substantially aligned with a corresponding one of the read heads such that each of the write channels substantially aligns with a corresponding one of the read channels.

Regarding claim 8, Schwarz discloses that a number of write heads in the array of write heads is the same as a number of MR heads in array of read heads.

Regarding claim 9, Schwarz discloses that each of the write heads and each of the MR heads are independently controllable (column 8, lines 29-32).

Regarding claim 12, Schwarz discloses an additional head that functions as a read element that reads pre-written servo marks (column 9, lines 26-30).

4. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Nute (U.S. Pat. 5,862,014).

Regarding claim 1, Nute discloses a system for reading and writing information to magnetic media (figure 4) comprising:

an array of write heads 146 (A-D) and 150 (A-D) arranged in a two-dimensional matrix, wherein each of the write heads defines a write channel for the system; and

an array of magnetoresistive (MR) heads 142 (A-D), wherein each of the MR heads defines a read channel for the system.

Regarding claim 2, Nute discloses that the array of MR heads comprises a linear array of MR heads and the array of write heads comprises a planar array of write heads (see figure 4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarz in view of Nagata et al.

Regarding claims 4-7 and 12, Schwarz discloses the system described above. Schwarz differs in not: (A) utilizing GMR type read head (re claim 7), (B) specifying the listed track spacing (re claims 4-6).

Concerning (A), it is very well known and common to utilize GMR type heads for reading. Nagata et al shows this in the environment of a plural track system with separate read and write heads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize GMR type heads for the read heads in Schwarz. The motivation is as follows: these are commonly used for read heads.

Concerning (B), it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the system of Schwarz to have the listed spacing.

The motivation is as follows: this would have been the obvious result of routine experimentation and optimization.

7. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarz in view of Nozieres et al.

Regarding claims 10-11, Schwarz does not specify the listed controller details.

Nozieres et al teaches individually controlling each write head in a plural head environment.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Nozieres et al to Schwarz. The motivation is as follows: one of ordinary skill in the art uses any known control scheme.

Response to Arguments

8. Applicant's arguments, see page 7, filed 2/7/07, with respect to the rejection(s) of claim(s) 1-12 under 35 U.S.C. § 103 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A. Castro whose telephone number is 571-272-7584.

The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink that reads "Angel Castro" followed by a stylized capital "C".

Angel Castro, Ph.D.